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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,504	02/01/2005	Geert Feye Woerlee	470-044735	5942

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EXAMINER

KHAN, AMINA S

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/502,504

Applicant(s)

WOERLEE ET AL.

Examiner

Amina Khan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02/28/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

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which it pertains, or with which it is most nearly connected, to make and/or use the invention. The language of claim 1, defining the formulas by which ionic surfactants may be represented is unclear. The examiner has difficulty determining which surfactants are being claimed since the specification does not recite specific compounds or tradenames. Furthermore, in the instant specification, the applicant recites that certain surfactants may precipitate in the presence of carbon dioxide, but those particular compounds are never identified from those grouped in generic formulas, leaving the examiner unclear as to which species would have those properties. The examiner suggests that the applicant disclose a list of surfactant types usable in the instant methods (for example see prior art document US 6,200,352: column 3, lines 48-67) such as those disclosed in the instant examples.

Claims 12-21 are rejected for being dependent claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim language "optionally heterogeneous" recited several times in claim 1 part b and claim 16 renders the claim indefinite. The examiner is unclear how to interpret what optionally heterogeneous encompasses. Appropriate correction of the claim language is required.

Claims 12-15 and 17-21 are rejected for being dependent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over (Romack et al. (US 6,200,352) in view of Octadecylamine document (www.ams.usda.gov/nop/nationallist/tapreviews/octadecylamine.pdf).

The primary reference of Romack et al. teaches methods of dry cleaning fabrics comprising contacting articles to be cleaned with liquid/vapor dry cleaning compositions in a closed drum, agitating the drum for a sufficient time to clean the fabric, removing the cleaning composition from the drum, rinsing the fabric in liquid CO₂ without additional ingredients or with co-solvent and/or water, agitating the article in the rinse solution, and removing the rinse solution and the fabric from the drum (column 5, lines 66-67; column 6, lines 1-18). Romack further teaches treatment temperatures of 22-27°C, treatment pressures of 800-900 psi, which meets the claimed limitation of 1-100 Mpa, and treatment times of 10 minutes, as claimed in claims 11-14, 19 and 20.

Romack further teaches methods of dry cleaning using compositions comprising up to 30% densified carbon dioxide, organic co-solvents, specifically mono and di-esters of aliphatic or aromatic hydrocarbons (EXXON ISOPAR L), 0.02-5% water, and 0.1 or 0.5% surfactant, specifically ARMEEN® primary alkylamines, (column 2, lines 52-63; column 3, lines 18-23; column 5, lines 21-24), as claimed in claims 11, 15, 16 and 18.

Romack is silent as to the specific alkylamine surfactants used and the percentage of undissolved surfactant present during the methods for dry cleaning. However, Romack clearly suggests the use of ARMEEN® alkylamines.

The secondary reference titled Octadecylamine, teaches Armeen 118D and 18D, which are octadecylamine surfactants (page 1: other names, line 2; action, line 3) as claimed in claim 16. The secondary reference further teaches that octadecylamine in boiler equipment prevents carbonic acid formed from carbon dioxide captured within the steam from coming into contact with steam lines (page 1, action, lines 1-2). In the instant specification, the applicant discloses the use of liquid amine surfactants in the instant compositions, as they form solid particles during the cleaning operation, probably as a result of the reaction with carbon dioxide, resulting in the formation of a solid carbamate (page 2, paragraph 0019) and further discloses the use of octadecylamine in examples 6-9 (page 5, paragraphs 0070-0073).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of dry cleaning taught by Romack by substituting the ARMEEN® 118D or 18D into the treatment compositions as taught by the Octadecylamine document, because the Octadecylamine document teaches the utility of these compounds as surfactants and reactants with carbon dioxide. Regarding the claimed property of at least 10 or 30% undissolved solid surfactant as claimed in claims 11 and 21, one of ordinary skill in the art would expect the octadecylamine in the prior art compositions to precipitate out in similar percentages to the instantly claimed values because the prior art teaches dry cleaning methods comprising similar cleaning

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compositions and similar treatment steps. One of ordinary skill in the art would be motivated to combine the teachings of the two references absent unexpected results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Patent Examiner
January 30, 2006



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